TCAP End of Course, Biology I Criterion Referenced (CRT) Reporting Categories with State Performance Indicators

SPI # State Performance indicator Distinguish among tools and procedures best suited to conduct a specified scientific inquiry.	Inquiry, Technology & Engineering, Mathematics		
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Evaluate a protocol to determine the degree to which an engineering design process was successfully applied.			
3210.17.E.2 applied. 3210.17.E.3 Evaluate the overall benefit to cost ratio of a new technology. 3210.17.E.3 Evaluate the overall benefit to cost ratio of a new technology. 3210.17.E.4 Use design principles to determine how a new technology will improve the quality of life for an intended audience. 3210.17.E.4 Interpret a graph that depicts a biological phenomenon. 3210.17.E.5 Select a description or soenario that reevaluates and/or extends a scientific finding. 3210.10.17. Select a description or soenario that reevaluates and/or extends a scientific finding. 3210.10.19. Analyze the components of a properly designed scientific investigation. 3210.10.19. Determine appropriate tools to gather precise and accurate data. Evaluate the accuracy and precision of data. 3210.10.19. Determine why a conclusion is free of bias. 3210.10.7 Compare conclusions that offer different, but acceptable explanations for the same set of experimental data. Cells SPI# State Performance Indicator 3210.1.1 Identify the cellular organelles associated with major cell processes. 3210.1.2 Distinguish between prokaryotic and eukaryotic cells. 3210.1.3 Identify positive tests for carbohydrates, lipids, and proteins. 4210.1.6 Determine the relationship between cell growth and cell reproduction. 2210.1.7 Predict the movement of water and other molecules across selectively permeable membranes. 3210.2.1 Determine how the carrying capacity of an ecosystem is affect an ecosystem. Interdependence SPI# State Performance Indicator 3210.2.1 Predict how various types of human activities affect the environment. 3210.2.2 Interpret the relationship between environmental factors and fluctuations in population size. 3210.2.3 Make inferences about how a specific environmental change can affect the amount of biodiversity. Predict how warious types of human activities affect the environment. 3210.2.1 Predict how warious types of human activities affect the environment. 3210.2.2 Predict how aspecific environmental change can affect the e	3210.1/E.1		
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3210.4.5 Apply pedigree data to interpret various modes of genetic inheritance.	3210.4.4		
	3210.4.5	•	
22.5.1.5 20001100 1104 111010010 to 111101100 111 the production of egg and sport of cold.	3210.4.6	Describe how meiosis is involved in the production of egg and sperm cells.	

TCAP End of Course, Biology I Criterion Referenced (CRT) Reporting Categories with State Performance Indicators

3210.4.7	Describe how meiosis and sexual reproduction contribute to genetic variation in a population.	
3210.4.8	Determine the relationship between mutations and human genetic disorders.	
3210.4.9	Evaluate the scientific and ethical issues associated with gene technologies: genetic engineering, cloning, transgenic organism production, stem cell research, and DNA fingerprinting.	
Biodiversity & Change		
SPI#	State Performance Indicator	
3210.5.1	Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.	
3210.5.2	Recognize the relationship between form and function in living things.	
3210.5.3	Recognize the relationships among environmental change, genetic variation, natural selection, and the emergence of a new species.	
3210.5.4	Describe the relationship between the amount of biodiversity and the ability of a population to adapt to a changing environment.	
3210.5.5	Apply evidence from the fossil record, comparative anatomy, amino acid sequences, and DNA structure that support modern classification systems.	
3210.5.6	Infer relatedness among different organisms using modern classification systems.	